

CLAIMS

1. A spring buffer for an elevator system, said buffer disposed at one end of a hoistway of the elevator system for contacting a vertically moving member of said elevator system in the event of an abnormal overrun, characterized in that said spring buffer includes a conical coil spring having a spiral coil element radius decreasing with increasing axial displacement.
2. A spring buffer as recited in claim 1, further characterized in that said conical coil spring comprises a series of coils, wherein the outer radius of the next sequential coil is less than the inner radius of the preceding coil, thereby permitting said coils to be compressed axially without experiencing radial interference.
3. The spring buffer as recited in claim 2, further characterized in that the cross-section of the coil element is circular.
4. The spring buffer as recited in claim 2, further characterized in that the cross-section of the coil element is rectangular.
5. The spring buffer as recited in claim 2, further characterized in that the transverse coil pitch is constant.
6. The spring buffer as recited in claim 1, where in the vertically moving element is an elevator car.
7. The spring buffer as recited in claim 1, where in the vertically moving element is a counterweight.